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## THE ROLE OF INFORMATION IN HARNESSING FISHERIES AND ECO-TOURISM FOR NATIONAL DEVELOPMENT

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### Abstract

The importance of information in every sector cannot be over-emphasized. The ability to identify and utilize our natural endowment depends on the availability of information resources within or at the right time. The low level of information provision in Nigeria is attributed to poor infrastructure as a result of inadequate funding of the sector. Research has shown how information has revolutionized the society, moving the world from the industrial age to the information age and completely changing the way the economy functions. Success goes with the best information. However, for now, if there must be increase in fish production and eco-tourism participation, employment opportunities, poverty reduction, food security and nature appreciation in terms of environment and living creatures, our fisheries scientists and policy makers will have to rely on sources of information using the advantage of libraries, and Information Communication Technology (ICT). This development in information resources affects many areas of Nigerian economy including the fisheries and eco-tourism sectors. The contribution of information resources in the development of the fisheries sub-sector can be viewed under those of fisheries information products like the Nigerian Fisheries and Aquatic Sciences. (NIFFIC) database, Proceedings of the national conferences of Fisheries Society of Nigeria (FISON), annual and technical reports of Fisheries Research Institutes in the country. Also to be brought under perspective is the information products of eco-tourist institutions like the Nigerian National Parks.

### Introduction

The role of information in every sector of the national economy and its contribution to national development cannot be over-emphasized. Every individual needs information for decision-making. It has, in fact, revolutionized society, moving the world from the industrial age to the information age and completely changing the way the economy functions.

Information provision for national development has to have the attributes of accuracy and timeliness. Also sufficiency is another relevant attribute. When those attributes are met, information obtained can then be relied upon for harnessing the natural endowments of our nation, like the fisheries and eco-tourism sector, for national development.

Information is the bedrock of policy formulation. Adequate information provision will, no doubt, provide an enabling atmosphere and a solid base for the formulation of effective policies, which would, in the long run, bring about the desired national development. Sadly, the level of information provision in developing countries like Nigeria has been quite below standards, compared to the level in developed countries. This can be blamed on poor value placed on information by policy makers in the developing countries, inadequate provision of infrastructure, probably as a result of poverty level. The aim of this paper is to highlight the inadequacies of our information base like libraries as a result of poor funding to meet your information needs and to equally highlight alternative sources of information to enhance our efforts to increasing fish production, eco-tourism, participation, employment opportunities, poverty reduction and food security in Nigeria.

### Problems

The Nigerian government has put in place, programmes and projects towards creating economic empowerment for the population. A major difficulty in implementing agricultural development programmes in Nigeria is inadequacy and lack of adequate information strategy. The position of library services and other agents or stakeholders as a medium of information has been largely neglected due to poor funding. This has resulted in unavailability of current information materials. In addition there is the problem of developing a valid, reliable and credible information database about fisheries and eco-tourism and their contribution to local, regional and global economies.



## POVERTY LEVELS AND FISH PRODUCTION STATUS IN NIGERIA

Poverty has been described as a living condition in which an entity is faced with economic, social, cultural and environmental deprivation. (Ajakaiye and Olomola 1999). A recent UNDP human development index ranked Nigeria among 44 poorest countries in the world Table 1.0 indicates the trends in poverty among Nigerian populace between 1980 and 1996.

Total consumption in Nigeria is estimated at more than 1.3million metric tones (MT) annually. Domestic production constitutes only about 450,000 MT while importation is about 800,00 MT, thus contributing to a loss of revenue and a negative balance of the fish production in Nigeria from various water bodies is presented in Table 2:

Literature shows various fish farming practices in Nigeria, which are homestead, concrete tanks/ponds, subsistence fish farming, small to medium fish farming and large-scale fish farming (Ayeni, 1989, Anadin 1996). More information on advanced fish farming techniques such as the flow through system and recirculatory system that would increase production and employment drastically needs to be documented on local databases and made available to the users or farmers.

**Table 1.0 TREND IN POVERTY LEVEL 1980 1996 (%)**

YEAR	POVERTY LEVEL	ESTIMATED TOTAL	POPULATION POVERTY
1980	28.1%	65m	17.7m
1985	46.3%	75m	34.7m
1992	42.7%	91.5m	39.2m
1996	65.6%	102.7m	67.1m

Source: Federal Office of Statistics, National Census Survey

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Literature shows various fish farming practices in Nigeria, which are homestead, concrete tanks/ponds, subsistence fish farming, small to medium fish farming and large-scale fish farming . More information on advanced fish farming techniques such as the flow through system and recirculatory system that would rapidly increase production and employment needs to be documented on local databases and made available to the users or farmers.

## Library And Information Services For The Development Of Fisheries And Eco-tourism In Nigeria.

**Lending Services:** It is essentially a social service in which users of library have the privilege of borrowing library materials, books and non-book materials either for reading, consultation, or education of others. Other resources in the library that can be loaned include audiocassette, radio, and video-machines. Occasionally, these materials are lent to instructors and extension officers for out-reach and education of people who cannot have access to the information.

### Inter-library Loan (ill) And Document Delivery Service.

It involves transactions between two libraries. A library, which does not have a particular material desired by one of its clients, would borrow the materials by requesting from another library on behalf of the client who needs the materials. The inter-library loan system usually requires that participating libraries sign an agreement on how ILL will be operated. This could be with respect to the forms that would be used for requesting a library material, conditions of loans, mode of delivery. The advantage of getting information materials from commercial document and suppliers, are that they are very timely but it is very expensive to obtain materials from document suppliers. In any case, Information Communication Technology (ICT) now provides wider opportunities for resource sharing. However, its cost implication is also enormous.



Table 2.0 NATIONAL FISH SUPPLY BY SECTOR (000 TONNE)

YEAR	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Artisanal costal and Brackish water catches	171	168	184	107	124	159	142	157	279	190	196
Artisanal inland, rivers and lakes catches	113	123	100	95	110	167	142	157	167	173	175
Fish farming (Aquaculture)	7	16	20	19	18	17	21	33	38	42	43
Industrial (trawling, coastal fish and shrimps)	25.7	36	39	36	22	33	27	17	21	25	29
Total	16.7	343	343	257	274	371	332	364	405	430	433

Sources: FOS, FAO production yearbook, Central Bank of Nigeria, Annual Agricultural survey (2000)



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## **Modern Approaches To Resource Sharing**

The capabilities of computer and communication technology network has not only radically revolutionized the process of resource sharing, but has also brought about a fundamental transformation from the traditional approaches of resource sharing. The modern approaches include: (1). Internet; (2). Electronic mail; (3). Digital library approach; (4). Teleconferencing and video conferencing; and (5). Office automation.

All these approaches give room to creation of cross-database, abstracting and indexing databases, up to document delivery. It is hoped that the librarians and other information scientists would adopt the new approaches and forge ahead in the dissemination of information.

## **Information Provision For The Development Of Fisheries And Ecotourism In Nigeria**

In Nigeria, similar to the developed countries, there are varieties of information resources which agricultural use or which is potentially useful for meeting their information needs. The prominent ones are extension officers, agricultural libraries and the use of information communication technology (ICT). Apart from extension officers, friends, relations or neighbors, meetings, local leaders, village heads, churches and farmers' club, agricultural libraries should be able to package some of the needed information like newspapers, magazines and journals, conference proceedings and government reports. Information Communication Technology (I.C.T.) provides current and useful resources through the internet, radio and television, which are most helpful in information provision. Researchers, educators, extension agents, information specialists have often cited libraries and ICT in general as most helpful.

Owing to inadequate number, the low literacy level of farmers and the general lack of infrastructure in the rural communities in Nigeria, packaging of commercial information into a usable form for farmers is very relevant and have much impact. They prefer information delivery service through fisheries clubs, radio and television channels, preferably in local languages for reason of low literacy level. Also through information leaflets, flyers, diagrams and awareness programmes. Other factors are user-related such as education, age, economic status, geographical location. It is obvious that where a farmer has no radio or the radio programme is not likely to be of use to a farmer, or the broadcast is in a language which the farmer cannot understand; he will not listen to it and therefore will not find it useful.

## **Eco-tourism**

Fishing is part of eco-tourism. Ecotourism has been defined as "environmentally responsible travel and visitation to relatively undisturbed natural areas in order to enjoy, study, and appreciate nature and any accompanying cultural features that promote conservation,--- has a negative visitation impact and provides for substantial beneficial active socio-economic involvement of local populations".

For too long, the tourism industry both internationally and domestic, has had difficulty making statistical comparison with other sectors of economy. This has led to difficulty in developing a valid, reliable and credible information or database about tourism and its contribution to local, regional and global economies, that could compare to well established information bases like, fish base, F.A.O., AGORA, ASFA, etc. ([http://www.borneo-com.au/ecotourism Infor.](http://www.borneo-com.au/ecotourism%20Infor))

For an increased participation to be achieved, there must be packaged information reachable to people concerning the activities of the sector. The information that could reach the target could be in form of prospectus, guides, television advertisement, radio advertisement and on-line database. Apart from the information packaged in the library, they will go a long way in showcasing all the benefits derivable in this industry which includes employment, aesthetic enjoyment, nature- appreciation, need for conservation of certain natural endowment and food security.

## **Information Resources Of The Fisheries And Eco-tourism Sub-sectors**

The Nigerian Fisheries and Aquatic sciences database(NIFFIC) is a special collection of the library of National Institute for Freshwater Fisheries Research. In this collection, information materials on freshwater fisheries which are either published in Nigeria or outside Nigeria, but about Nigerian Freshwater Fisheries, are put together for Meeting the information needs Of policy



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makers, fisheries scientists, researchers, lecturers, students and all those who seek such information. The NIFFIC abstract is an information product of this special collection. It provides the abstracts of materials held in the collection. It includes subject, species and author indexes for easy retrieval of information. The abstract bear over a hundred entries in each volume and it is now in the 11<sup>th</sup> volume. The collection is very heavily used and widely consulted among the stakeholders of the fisheries sub-sector in Nigerian. In addition to this collection, other information materials from this sub-sector like annual and technical reports of Fisheries institutions including the Nigeria Institute for Oceanography and Marine Research (NIOMR), the Colleges of Fisheries, University Departments of Fisheries, etc, all make valuable contributions to the development of Fisheries in Nigeria.

Likewise the eco-tourism industry have some information materials, which are very useful to tourists in satisfying their information needs. A synopsis on the attributes and potentials of Nigeria National Parks is a very handy but very rich information material, which informs the reader, what a national park is, the materials they contain and the purpose they serve for our common good. It has information on the six National parks in Nigeria that are well distributed across the major ecological zones except the marine and mangrove ecosystems. They are Chad Basin National Park, Cross River National Park, Gashaka Gumti National Park, Kainji Lake National Park, Old Oyo National Park, Yankari National Park. National parks play very important, often fundamental roles in agricultural development. Their primary role in the conservation of gene pool, which is the basis for any future improvement in agricultural yield, evolution of pest and disease resistant crops, taste, new strains, domestication of wild species, etc), is of paramount importance to the national development. Their role in ecological processes such as in hydrological cycle and water purification, absorption of carbon dioxide and other noxious elements, climate amelioration etc are functions that cannot be monetarily quantified.

### **Conclusion**

The funding and development of Nigerian fisheries and ecotourism databases should be seen as a step in the right direction. For us to prove our relevance and contribution to the economy of the nation, all stakeholders in fisheries and ecotourism development should participate in developing the database. Scientists and publishers should deposit copies of their work in libraries and information centers for index coverage in indigenous information databases. Effective awareness service to the end users is vital for effective and meaningful implementation of the government economic empowerment scheme. Hence, libraries, information centers or units can help in poverty alleviation because it has been established that there is a positive correlation between information poverty and economic poverty. In an effective information society, access to cyberspace is a route to better quality of life in general. Therefore, just as books are freely available from libraries, eyberspace should also be made available free of charge, in addition to other information communication technologies. Finally in Nigeria, with the help of farmers' clubs and other stakeholders, the real opportunity for achieving the millennium development goals especially as regards fisheries and ecotourism sector lies in the provision of strong network of effective information services to the people.

### **References**

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